PART NO. TODCD-EN-01

HITACHI

Reliable solutions

Technical Manual
Operational Principle

ZX
200-5G
200LC-5G
210H-5G
210LCH-5G
210K-5G
210LCK-5G
Hydraulic Excavator

Service Manual consists of the following separate Part No.

Technical Manual (Operational Principle)	: Vol. No.TODCD-EN
Technical Manual (Troubleshooting)	: Vol. No.TTDCD-EN
Workshop Manual	: Vol. No.WDCD-EN
Engine Manual	: Vol. No.EDCD-EN

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GENERAL

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Engine Accessories

RADIATOR ASSEMBLY	Type	Parallel Type
	Weight	59 kg (130 lb)

	Radiator	Oil Cooler	Intercooler
Air-Tight Test Pressure	98 kPa (1.0 kgf/cm², 14 psi)	1470 kPa (15 kgf/cm², 213 psi)	245 kPa (2.5 kgf/cm², 36 psi)
Cap Opening Pressure	49 kPa (0.5 kgf/cm², 7 psi)	–	–

BATTERY	Type	115E41L
	Capacity	88 Ah (5-Hour Rate)
	Voltage	12 V
	Weight	27.5 kg (61 lb)×2

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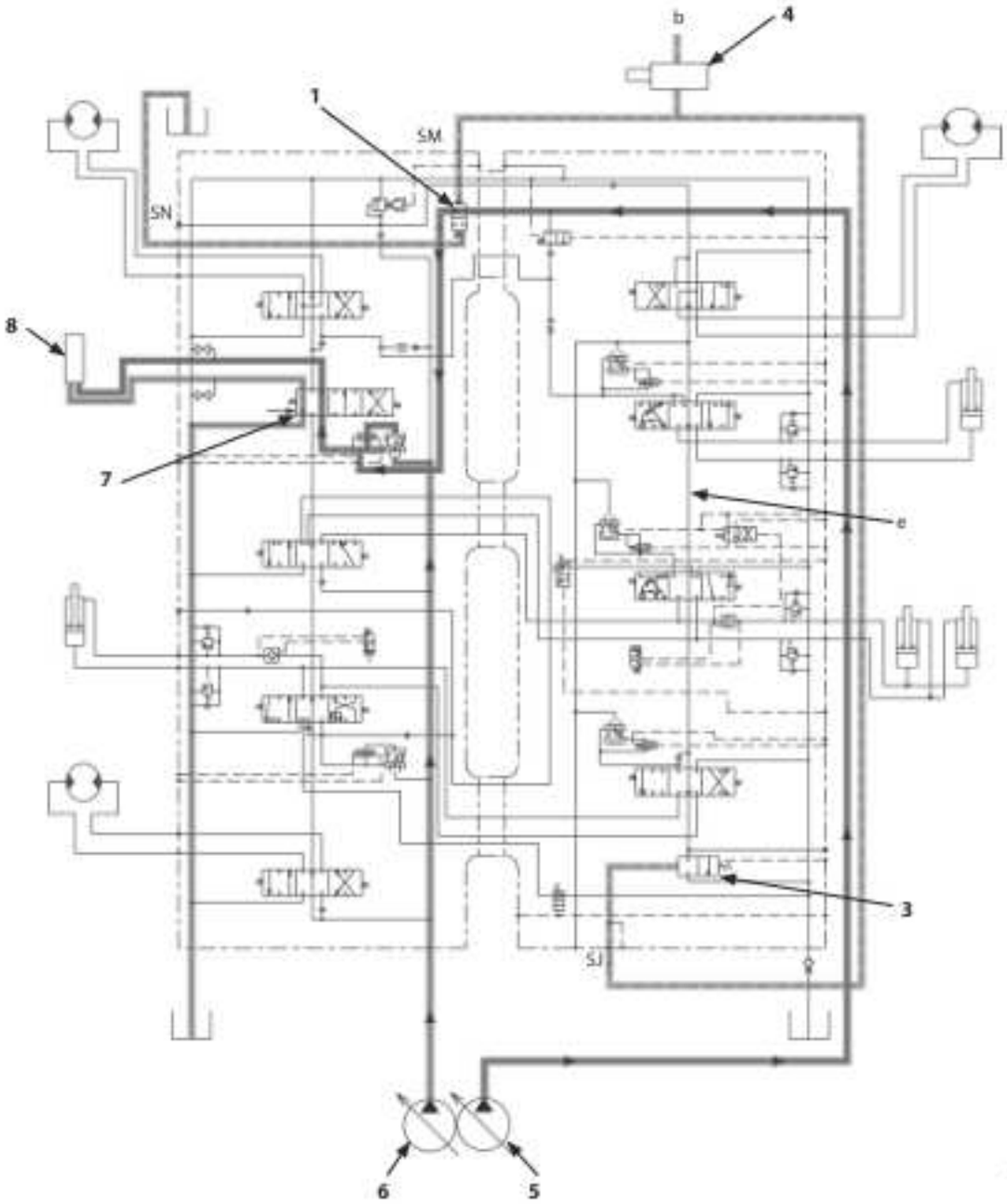
Hydraulic Oil Temperature Pump Torque Decrease Control

Purpose:
The hydraulic oil temperature pump torque decrease control reduces the pump flow rate and pump driving torque when hydraulic oil temperature increases so that the engine overheating is prevented.

Operation:

1. MC (8) activates torque control solenoid valve (20) when hydraulic oil temperature increases.
2. Torque control solenoid valve (20) delivers the pilot pressure according to the signals to the regulator and reduces the pump delivery flow rate.
3. Therefore, the engine overheating is prevented when hydraulic oil temperature increases.

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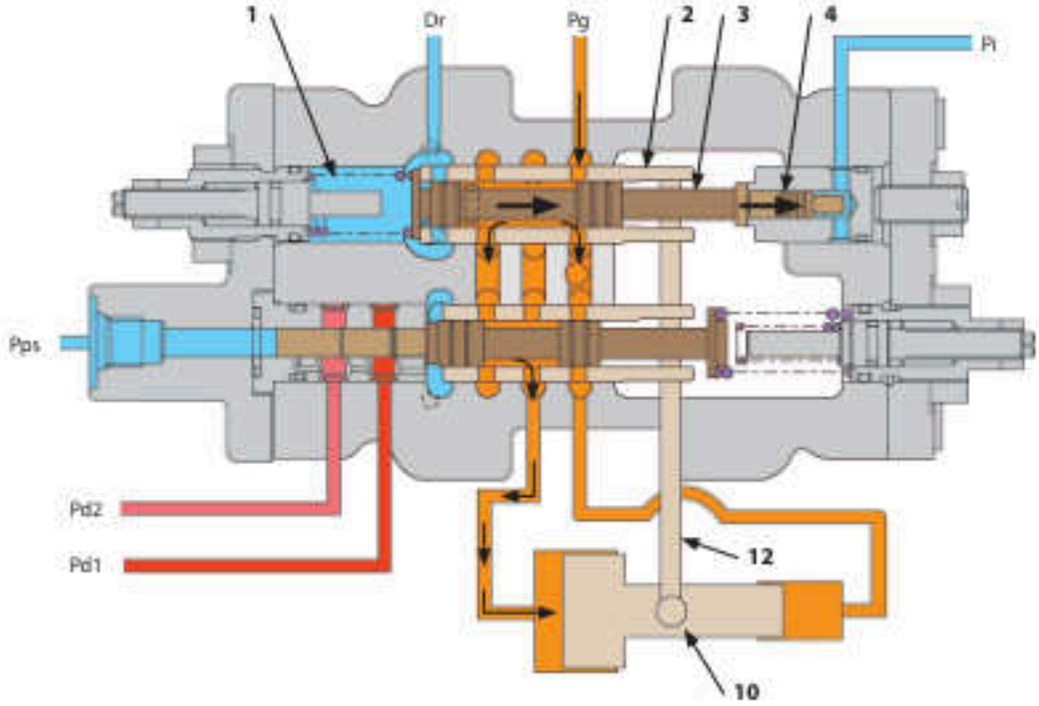
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NOTE: The illustration shows auxiliary (open) operation.

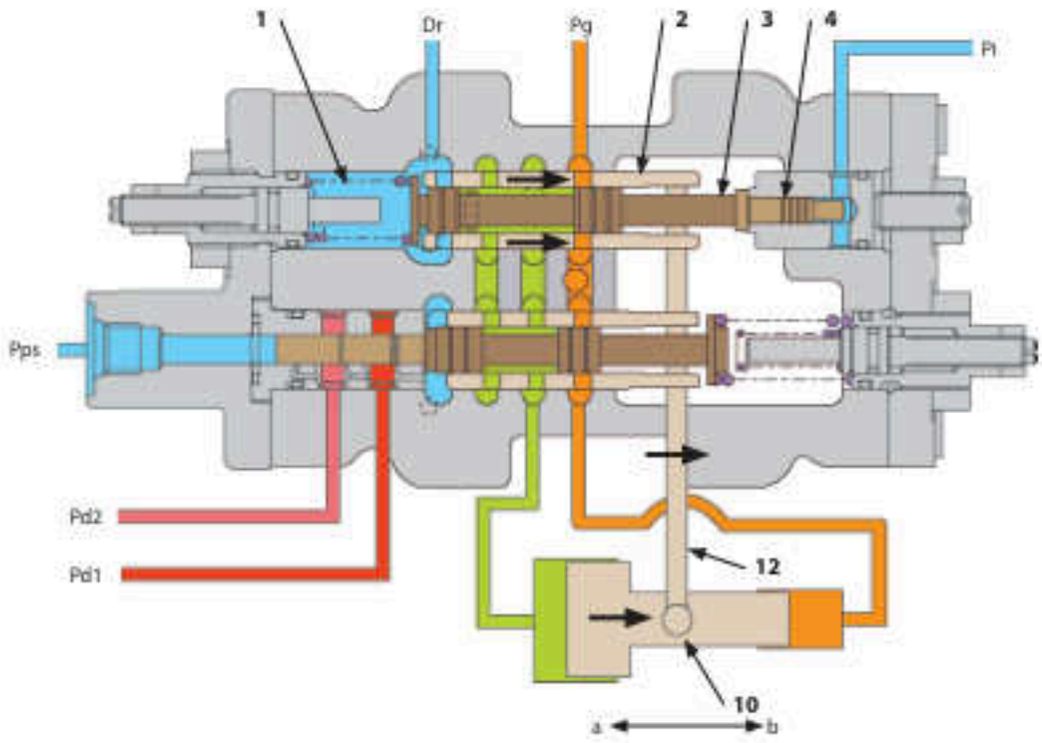
b - Attachment Pilot Pressure
e - Neutral Circuit in 4-Spool Section
1- Spool (Auxiliary Flow Combiner Valve)
3- Spool (Bypass Shut-Out Valve)
4- Auxiliary Flow Combiner Control Solenoid Valve
5- Pump 1
6- Pump 2
7- Auxiliary Spool
8- Attachment

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NOTE: The illustration shows the pump2 regulator.



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TDCD-03-01-012

Pd1- Pump 1 Delivery Pressure
Pd2- Pump 2 Delivery Pressure

Dr- Returning to Hydraulic Oil Tank

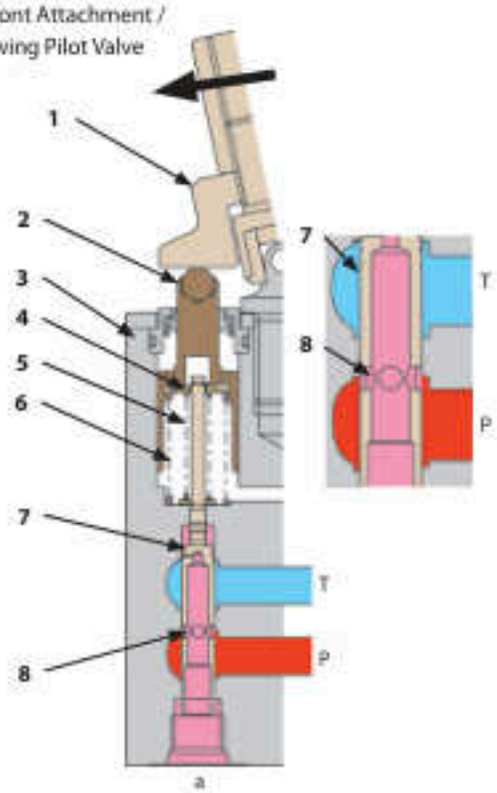
Pi- Pump Control Pressure
Pps- Torque Control Pressure

Pg- Primary Pilot Pressure (From Pilot Pump)

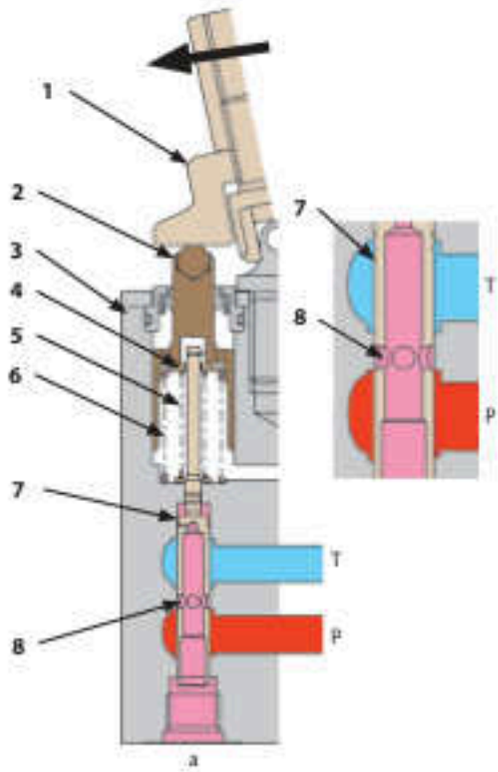
1- Spring
2- Sleeve A
3- Spool A
4- Piston
10- Servo Piston
12- Link

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Front Attachment / Swing Pilot Valve

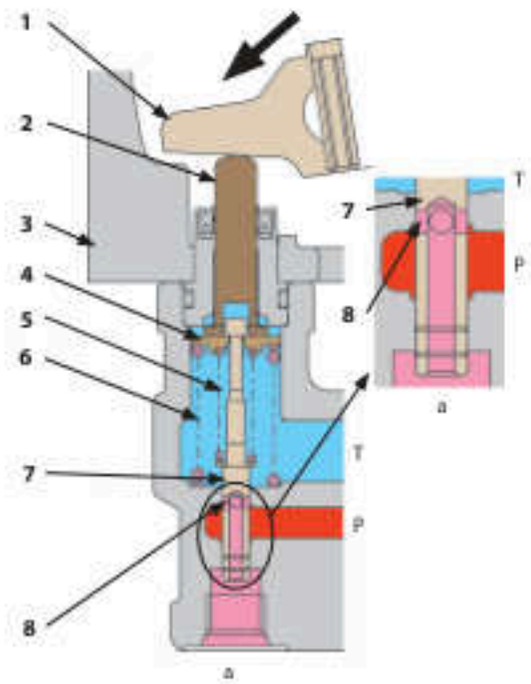


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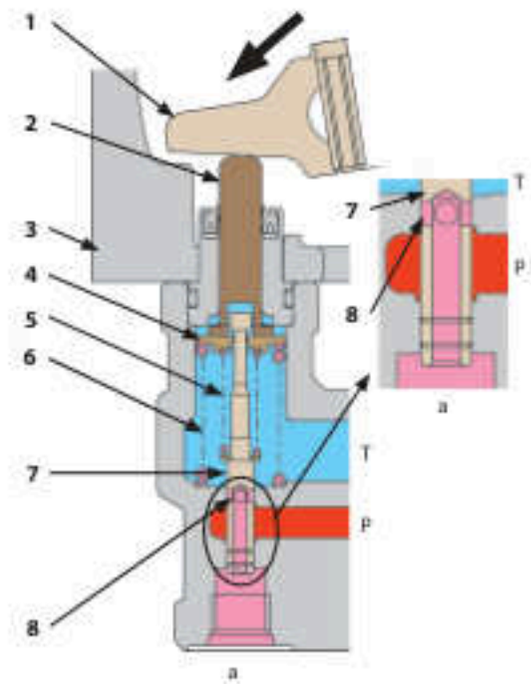


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Travel Pilot Valve



TPPP-03-04-012



TPPP-03-04-013

P- Port P
T- Port T
a- Output Port

1- Cam
2- Pusher
3- Casing
4- Spring Guide
5- Balance Spring
6- Return Spring
7- Spool
8- Hole

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